09/960, 089.

cy C

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Michel Koopmans

Patent No.: 6,847,105 B2

Issued: January 25, 2005

For: BUMPING TECHNOLOGY IN STACKED DIE CONFIGURATIONS

Attorney Docket No.: 2269-4882US

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

April 16, 2007

Signature

Leta M. Howard Name (Type/Print)

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT

OFFICE MISTAKES (37 C.F.R. § 1.322)

Attn.: Certificate of Corrections Branch

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Certificate

APR 2 3 2007

of Correction

Sir:

It is noted that several errors appear in this patent of a typographical nature. These errors are due to mistakes in printing on the part of the U.S. Patent and Trademark Office, and occurred through no fault of the Applicant. A certificate of correction in the form attached hereto is requested.

Please send the Certificate to:

Name:

Krista Weber Powell

Address:

TraskBritt

P.O. Box 2550

Salt Lake City, Utah 84110

Attached hereto in duplicate is Form PTO/SB/44 with at least one copy being suitable for printing.

Respectfully submitted,

Krista Weber Powell
Registration No. 47,867
Attorney for Applicant(s)
TRASKBRITT
P.O. Box 2550

Salt Lake City, Utah 84110-2550

Telephone: 801-532-1922

Date: April 16, 2007

KWP/csw

ن ۲

Enclosures: PTO/SB/44 in duplicate

Document in ProLaw

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 1 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, section (57): ABSTRACT, 11th line

change "a bond pad on top semiconductor" to --a bond

pad on the top semiconductor--

In the drawings:

In FIG. 2

insert reference numeral --74-- and associated lead line at

top central portion of drawing

In FIG. 6

insert -- (PRIOR ART) -- right below "Fig. 6"

In FIG. 7

insert -- (PRIOR ART) -- right below "Fig. 7" and insert reference numeral --724-- and associated lead line at the bottom left portion between reference numerals "760" and

"728"

In FIG. 8

insert -- (PRIOR ART) -- right below "Fig. 8"

In FIG. 10

change reference numeral "976" to --974'--

In FIG. 11

insert reference numeral --1030-- and associated lead line

at bottom left portion of drawing

In FIG. 14

insert reference numeral --930"-- and associated lead line

at bottom right portion of drawing

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 23 2007

No. of additional copies

after "circuit board." delete the remainder of the paragraph (duplicate sentence): "A variation of the pin-in-recess

change "additional semiconductor die" to --additional

change "to the bond" to --to the first redistribution bond--

change "having bond pads 430" to --having first

change "connected, bond" to --connected, first

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 2 of 11

DATED

: January 25, 2005

INVENTOR(S):

Michel Koopmans

COLUMN 1, LINES 49-51,

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the specification:

	(auphreuse semience). If variation of the pin in 1000s
	PGA, wherein the loops of the J's are soldered to pads on
	the surface of the circuit board."
COLUMN 2, LINE 50,	change "chip on board" tochip-on-board
COLUMN 3, LINE 48,	change "packaged die" topackaged dice
COLUMN 3, LINE 50,	change "stacked die" tostacked dice
COLUMN 4, LINES 15-16,	change "corresponding redistribution" tocorresponding
	first redistribution
COLUMN 4, LINE 20,	change "distance that bond" todistance so that bond
COLUMN 4, LINE 21,	change "above an" toabove the
COLUMN 4, LINES 28-29,	change "bond pad on substrate." tobond pad on the
	substrate
COLUMN 5, LINE 8,	change "that include" tothat includes
COLUMN 5, LINE 31,	change "chip type" tochip-type

semiconductor dice--

redistribution bond--

redistribution bond pads 430--

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

COLUMN 5, LINE 48,

COLUMN 6, LINE 40,

COLUMN 6, LINE 42,

COLUMN 6, LINE 50,

APR 2 3 2001

No. of additional copies

Page 3 of 11

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,847,105 B2

DATED

January 25, 2005

INVENTOR(S): Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the specification continued:

COLUMN 7, LINE 15,	change "semiconductor die 20 . (FIG. 2)." tosemiconductor die 20 (FIG. 2)
COLUMN 7, LINE 24,	change "maybe" tomay be
COLUMN 8, LINE 22,	change "At least one peripheral" toAt least one of the peripheral
COLUMN 8, LINE 24,	change "least one edge of the peripheral edges" toleast one of the peripheral edges
COLUMN 8, LINE 28,	change "maybe" tomay be
COLUMN 9, LINE 16,	change "(e.g; solder," to(e.g., solder,
COLUMN 9, LINE 19,	change "semiconductoor die" tosemiconductor die
COLUMN 9, LINE 23,	change "the second die 920"" tothe second
	semiconductor die 920"
COLUMN 9, LINE 28,	change "962", 960"" to966", 964"
COLUMN 9, LINE 56,	change "conductor filled epoxy," toconductor-filled epoxy,
COLUMN 10, LINE 5,	change "of a bottom semiconductor" toof the top semiconductor
COLUMN 10, LINE 38,	change "peripheral edge 1064 , 1066 " toperipheral edges 1064 , 1066
COLUMN 10, LINE 50,	change "maybe" tomay be
COLUMN 10, LINE 57,	change "conductor filled epoxy," toconductor-filled epoxy,
COLUMN 10, LINE 63,	change "maybe" tomay be

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 2001

No. of additional copies

PATENT NO

6,847,105 B2

Page 4 of 11

(Also Form PTO-1050)

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the claims:

CLAIM 12, COLUMN 12, LINE 32-33,

change "bond pad is electrically" to --bond pad of said at least one redistribution bond pad circuit is electrically--

CLAIM 24, COLUMN 13, LINE 34,

change "semiconductor die are all electrically" to

--semiconductor die are electrically--

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA APR 2 3 2001 3 2 3 2001 of additional copies

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,847,105 B2

Page 5 of 11

DATED

: January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 2 with the following:

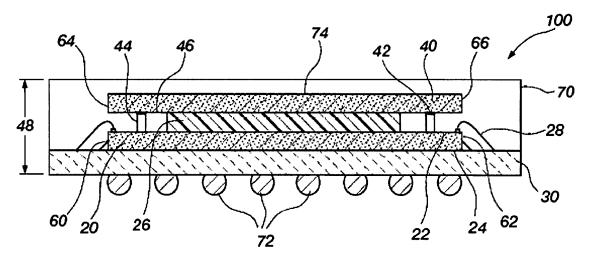


Fig. 2

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 2000 No. of additional copies

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 6 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 6 with the following:

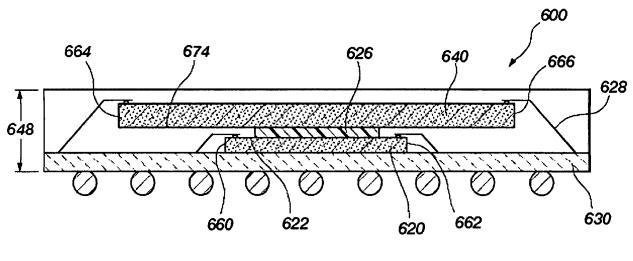
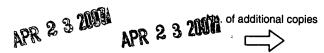


Fig. 6 (PRIOR ART)

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA



UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,847,105 B2

Page 7 of 11

DATED

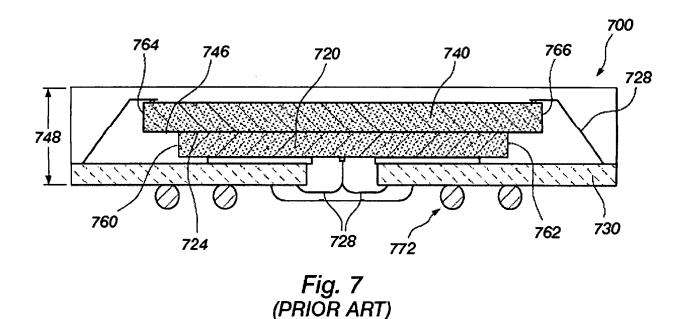
: January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 7 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA APR 2 3 20074

No. of additional copies



UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO 6,847,105 B2 Page 8 of 11

DATED

January 25, 2005 INVENTOR(S): Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 8 with the following:

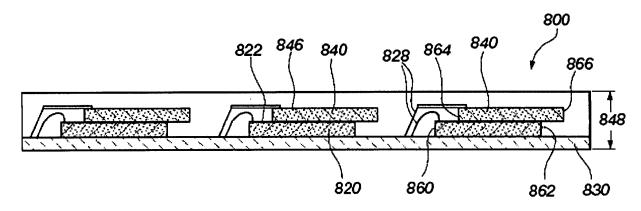
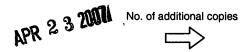


Fig. 8 (PRIOR ART)

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA



PATENT NO

6,847,105 B2

Page 9 of 11

DATED

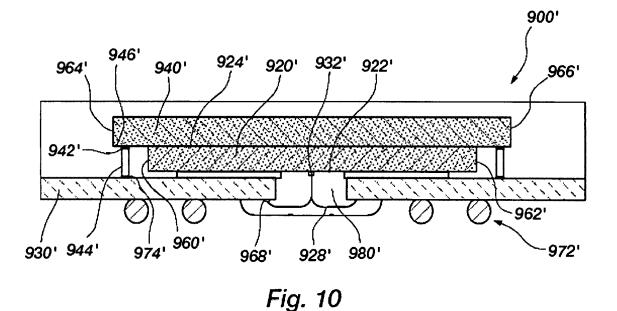
January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 10 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 2000

No. of additional copies

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 10 of 11

DATED

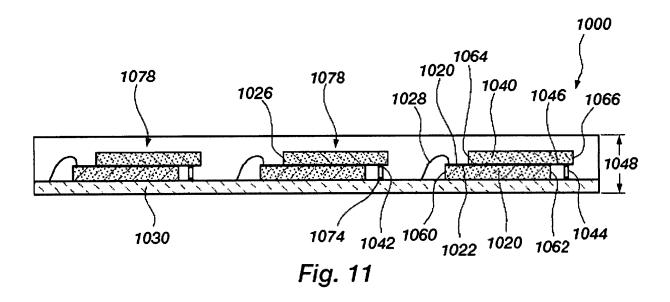
January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 11 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

No. of additional copies

PATENT NO : 6,847,105 B2

Page 11 of 11

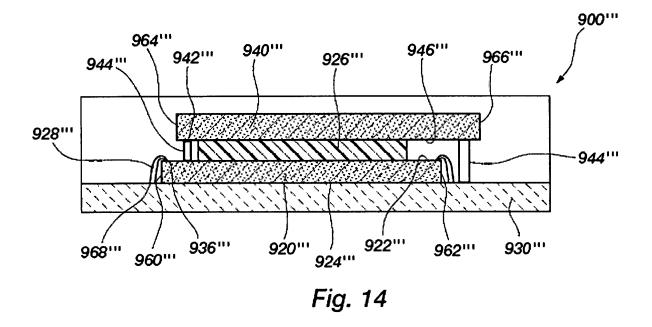
DATED

January 25, 2005

INVENTOR(S): Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 14 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

12R 2 3 2001

No. of additional copies

PATENT NO

6,847,105 B2

Page 1 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, section (57): ABSTRACT, 11th line

change "a bond pad on top semiconductor" to --a bond

pad on the top semiconductor--

In the drawings:

In FIG. 2

insert reference numeral --74-- and associated lead line at

top central portion of drawing

In FIG. 6

insert -- (PRIOR ART)-- right below "Fig. 6"

In FIG. 7

insert -- (PRIOR ART) -- right below "Fig. 7" and insert reference numeral --724-- and associated lead line at the

bottom left portion between reference numerals "760" and

"728"

In FIG. 8

insert -- (PRIOR ART) -- right below "Fig. 8" change reference numeral "976" to --974'--

In FIG. 10 In FIG. 11

insert reference numeral --1030-- and associated lead line

at bottom left portion of drawing

In FIG. 14

insert reference numeral --930"-- and associated lead line

at bottom right portion of drawing

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

No. of additional copies



PATENT NO

6,847,105 B2

Page 2 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the specification:

COLUMN 1, LINES 49-51,	after "circuit board." delete the remainder of the paragraph (duplicate sentence): "A variation of the pin-in-recess PGA, wherein the loops of the J's are soldered to pads on the surface of the circuit board."
COLUMN 2, LINE 50,	change "chip on board" tochip-on-board
COLUMN 3, LINE 48,	change "packaged die" topackaged dice
COLUMN 3, LINE 50,	change "stacked die" tostacked dice
COLUMN 4, LINES 15-16,	change "corresponding redistribution" tocorresponding first redistribution
COLUMN 4, LINE 20,	change "distance that bond" todistance so that bond
COLUMN 4, LINE 21,	change "above an" toabove the
COLUMN 4, LINES 28-29,	change "bond pad on substrate." tobond pad on the substrate
COLUMN 5, LINE 8,	change "that include" tothat includes
COLUMN 5, LINE 31,	change "chip type" tochip-type
COLUMN 5, LINE 48,	change "additional semiconductor die" toadditional semiconductor dice
COLUMN 6, LINE 40,	change "having bond pads 430 " tohaving first redistribution bond pads 430
COLUMN 6, LINE 42,	change "to the bond" toto the first redistribution bond
COLUMN 6, LINE 50,	change "connected, bond" toconnected, first

redistribution bond--

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA MR 2 3 2007

No. of additional copies



PATENT NO :

6,847,105 B2

Page 3 of 11

DATED

: January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the specification continued:

COLUMN 7, LINE 15,	change "semiconductor die 20 . (FIG. 2)." tosemiconductor die 20 (FIG. 2)
COLUMN 7, LINE 24,	change "maybe" tomay be
COLUMN 8, LINE 22,	change "At least one peripheral" toAt least one of the peripheral
COLUMN 8, LINE 24,	change "least one edge of the peripheral edges" toleast one of the peripheral edges
COLUMN 8, LINE 28,	change "maybe" tomay be
COLUMN 9, LINE 16,	change "(e.g; solder," to(e.g., solder,
COLUMN 9, LINE 19,	change "semiconductoor die" tosemiconductor die
COLUMN 9, LINE 23,	change "the second die 920"" tothe second
	semiconductor die 920"
COLUMN 9, LINE 28,	change "962", 960"" to966", 964"
COLUMN 9, LINE 56,	change "conductor filled epoxy," toconductor-filled epoxy,
COLUMN 10, LINE 5,	change "of a bottom semiconductor" toof the top semiconductor
COLUMN 10, LINE 38,	change "peripheral edge 1064 , 1066 " toperipheral edges 1064 , 1066
COLUMN 10, LINE 50,	change "maybe" tomay be
COLUMN 10, LINE 57,	change "conductor filled epoxy," toconductor-filled epoxy,
COLUMN 10, LINE 63,	change "maybe" tomay be

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

R 2 3 2004

No. of additional copies

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 4 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the claims:

CLAIM 12, COLUMN 12, LINE 32-33,

change "bond pad is electrically" to --bond pad of said at

least one redistribution bond pad circuit is electrically--

CLAIM 24, COLUMN 13, LINE 34,

change "semiconductor die are all electrically" to

--semiconductor die are electrically--

MAILING ADDRESS OF SENDER:

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA 2 3 200 TENT NO. 6,847,105 B2

No. of additional copies

R 2 3 2017

 \Rightarrow

PATENT NO

6,847,105 B2

Page 5 of 11

DATED

: January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 2 with the following:

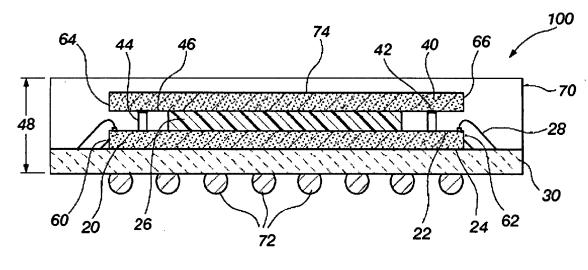


Fig. 2

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

2 3 2001

No. of additional copies

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 6 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 6 with the following:

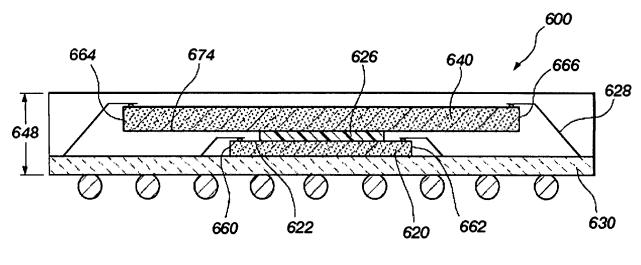


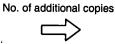
Fig. 6 (PRIOR ART)

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 20071



PATENT NO

6,847,105 B2

Page 7 of 11

DATED

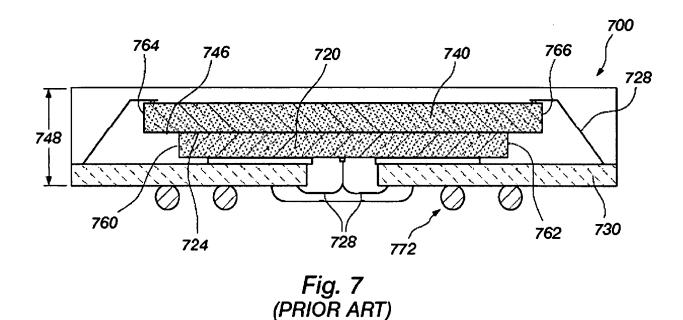
: January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 7 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 20074

No. of additional copies



UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

6,847,105 B2

Page 8 of 11

DATED

January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 8 with the following:

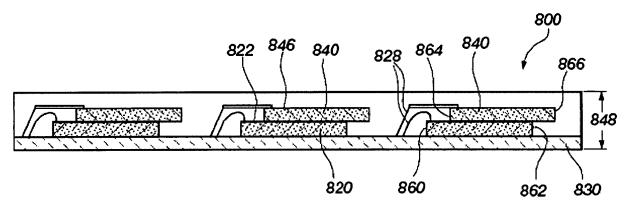


Fig. 8 (PRIOR ART)

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 2004

No. of additional copies



PATENT NO

6,847,105 B2

Page 9 of 11

DATED

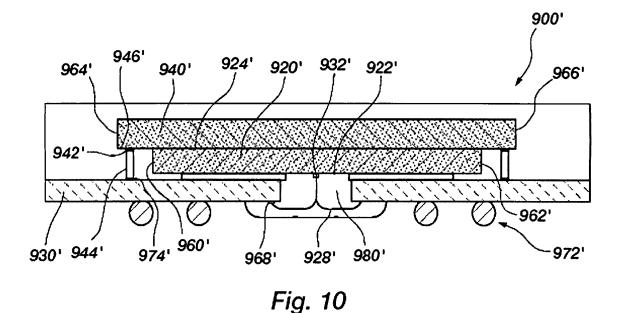
January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 10 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

No. of additional copies

TR 2 3 2007

 \Rightarrow

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,847,105 B2

Page 10 of 11

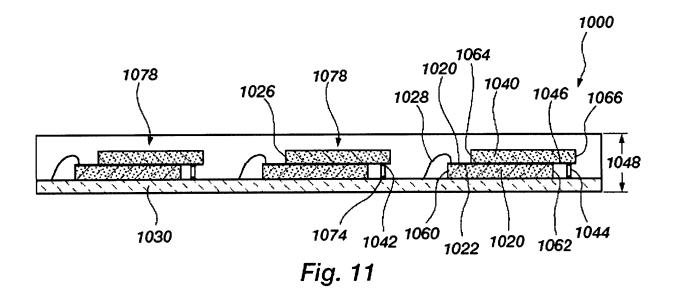
DATED

: January 25, 2005

INVENTOR(S) : Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 11 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA

APR 2 3 2007

No. of additional copies



PATENT NO : 6,847,105 B2

Page 11 of 11

DATED

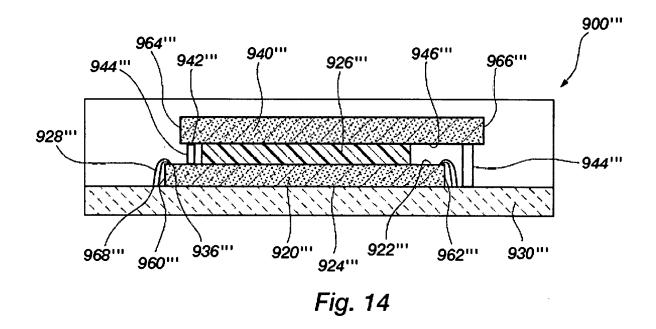
January 25, 2005

INVENTOR(S):

Michel Koopmans

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Replace FIG. 14 with the following:



MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell 230 South 500 East, Suite 300 Salt Lake City, Utah 84102 USA



No. of additional copies